

CLAIMS

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1. An ink jet recording method which receives a command and data which indicate a drawing of a thick line or a filled-in area, analyzes the command and the data by an interpreter, converts vector data of the thick line or the filled-in area into raster data based on a given data pattern after the analysis, and, based on the raster data, ejects ink droplets while moving a recording head over a recording medium with a plurality of ink ejection nozzles arranged thereon, said method comprising the steps of:

before converting to the raster data, checking by said interpreter whether the data pattern indicates solid-drawing in each of the thick line or the filled-in area for which the drawing is indicated; and

if the data pattern indicates solid-drawing, changing the data pattern to a lower-density pattern, thereby preventing an ink splash during printing.

2. The ink jet recording method according to claim 1 wherein said interpreter changes the data pattern by using a predetermined mask pattern.

3. The ink jet recording method according to claim 2 wherein one mask pattern is selected from a plurality of predetermined mask patterns according to a type of the recording medium.

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4. The ink jet recording method according to claim 1 wherein said data pattern is not changed if a thickness of the thick line is smaller than a predetermined thickness.

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5. The ink jet recording method according to claim 1 wherein the data pattern is changed at least for black ink.

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6. The ink jet recording method according to claim 1 wherein a single-pass recording method in which one band of an image is recorded in one head movement of the recording head is used, said one band corresponding to a width of said recording head.

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7. An ink jet recording device comprising:
an interpreter for analyzing a command and data which indicate a drawing of a thick line or a filled-in area;
means for converting vector data of the thick line or the filled-in area into raster data based on a given data pattern
after the analysis by the interpreter; and

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a recording head for ejecting ink droplets, based on the raster data, while moving over a recording medium with a plurality of ink ejection nozzles arranged thereon,

25 wherein said interpreter includes a pattern changing means for checking whether the data pattern indicates solid-drawing in each of the thick line or the filled-in area for which the drawing is indicated and, if the solid-drawing is indicated,

changing the data pattern to a lower-density pattern.

8. The ink jet recording device according to claim 7 wherein said pattern changing means changes the data pattern by using a predetermined mask table which stores therein a predetermined mask pattern.

9. The ink jet recording device according to claim 8 wherein said predetermined mask table contains a plurality of mask patterns each corresponding to a type of the recording medium and wherein said pattern changing means selects one of the mask patterns according to the type of the recording medium used.

10. The ink jet recording device according to claim 7, further comprising means for checking a thickness of the thick line and means for preventing the change of the data pattern when the thickness of the thick line is smaller than a predetermined thickness.

11. The ink jet recording device according to claim 7 wherein said pattern changing means changes the data pattern at least for black ink.

12. The ink jet recording device according to claim 7 wherein a single-pass recording method in which one band of an image is recorded in one band movement of the recording head,

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Concl* said one band corresponding to a width of said recording head.

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